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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/598,078

Filing Date: August 17, 2006

Appellant(s): OGG ET AL.

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Michael Marcin  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 16 June 2010 appealing from the Office action mailed 6 January 2010.

**(1) Real Party in Interest**

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

**(2) Related Appeals and Interferences**

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

1. Appeal No: 2010-004210; Application: 10/598,074; Appellant: Felix Henric Ogg et al.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

Claims 1-7, 9, 12-14, and 16-20 are pending.

Claims 8, 10-11, and 15 have been cancelled by the applicant.

Claims 1-7, 9, 12-14, and 16-20 stand as rejected.

**(4) Status of Amendments After Final**

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

**(5) Summary of Claimed Subject Matter**

The examiner has no comment on the summary of claimed subject matter contained in the brief.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

**WITHDRAWN REJECTIONS**

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner.

Claims 1-7, 9, 12, 14, and 16-20 rejected under 35 U.S.C. 102(e) as being anticipated by McKinney et al. (US Patent 7,518,054 B2)

Claim 13 rejected under 35 U.S.C. 103(a) as being obvious over McKinney et al. (US Patent 7,518,054 B2).

**(7) Claims Appendix**

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

**(8) Evidence Relied Upon**

6,837,827	Lee et al.	1-2005
2006/0112808 A1	Kiiskinen et al.	6-2006
5,215,468	Lauffer et al.	6-1993
6,230,047 B1	McHugh	5-2001
6,135,951	Richardson et al.	10-2000

### **(9) Grounds of Rejection**

The Examiner is noting two typographical corrections to the Lee rejections of the office action of 6 January 2010 (paragraphs 9 and 10).

The first is that the heading of paragraph 9 should read "Claims 1-4, 6, 7, 9, 12, 14, and 16-20". Claims 2, 14, and 16-19 were inadvertently omitted from the heading, however each of these claims is clearly listed in the body of the rejection and all the claim elements shown. This correction does not constitute a new grounds of rejection.

Secondly, the headings of paragraphs 9 and 10 should read "Lauffer et al. (US Patent 5,215,468)" and not "Lauffer et al. (US Patent 5,215,469)". This typographical correction is supported by the Notice of References Cited mailed on 19 August 2008. This correction does not constitute a new grounds of rejection.

The following ground(s) of rejection are applicable to the appealed claims:

**Claims 1-4, 6, 7, 9, 12, 14, and 16-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Lee et al. (US Patent 6,837,827)** hereinafter referred to as **Lee** in view of **Kiiskinen et al. (PG Pub 2006/0112808 A1)** hereinafter referred to as **Kiiskinen** in view of **Lauffer et al. (US Patent 5,215,468)** hereinafter referred to as **Lauffer**.

**Regarding claim 1**, Lee discloses an audio pacing device (**10**), comprising:  
a sensing unit (**40**) to obtain a parameter of a user in physical exercise;  
a memory (**64**) to store a plurality of audio signals (**col. 9 lines 26-30**) having predetermined tempo values; and

a processing unit (**60**) configured to determine whether intensity of the parameter of the user should be increased, decreased or maintained by using the parameter of the user from the sensing unit and a predetermined reference value (**col. 9 lines 21-26**), and select an audio signal having a tempo that enables the user to increase, decrease or maintain the intensity (**col. 9 lines 26-50**), the processing unit being configured to adjust the tempo of a selected audio signal up to a predetermined percentage of the predetermined tempo value (**col. 9 lines 51-66**).

Although the examiner considers Lee to disclose a plurality of audio tones and music stored on the device, Kiiskinen further teaches that it is known to have an interactive music playback device in which the audio signals are stored on a memory unit (**12; paragraph 45**). Kiiskinen further teaches a processing unit (**11**) configured to determine the predetermined tempo values of the plurality of audio signals, and wherein the plurality of audio signals are categorized based on their predetermined tempo values (**paragraph 46**).

Given the teachings of Kiiskinen (**paragraph 62**), it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the audio signal files of Lee stored on a memory. Doing so would allow the device to playback the sounds without relying on a separate device. Furthermore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the tempo reading means and organizing of the audio signals by tempo of Kiiskinen into

Lee. Doing so would allow the user to exercise to music at the appropriate rhythm of their routine.

Although the examiner considers Lee to disclose a the processing unit being configured to adjust the tempo of a selected audio signal up to a predetermined percentage of the predetermined tempo value, Lauffer further teaches that it is known to have a processing unit (**100, 110**) configured to adjust the tempo of a selected audio signal up to a predetermined percentage of the predetermined tempo value (**figs. 3 and 4; col. 4 line 62 – col. 5 line 34**). In the example given, the tempo is increased 150% of the original.

Given the teachings of Lauffer, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the processor of Lee with the tempo control means of Lauffer. Doing so would allow the device to be programmed to achieve specific rates of tempo and better guide the user toward a specific pace.

**Regarding claim 2**, Lee fails to disclose wherein the parameter is a pulse rate.

However, Kiiskinen teaches an audio pacing device (**fig. 1**), that utilizes pulse rate as a target parameter (**paragraphs 51 and 62**).

Given the teachings of Kiiskinen, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a pulse rate as a parameter to be measured with the invention of Lee. Doing so would give the user a

better idea of how hard their heart was working during exercise as is common and well known to do in the art.

**Regarding claim 3,** Lee discloses parameter is a step-speed rate (**col. 9 lines 33-41**).

**Regarding claim 4,** Lee discloses the tempo comprises a beat (**col. 9 lines 54-61**). Lee doesn't disclose the beat per minute values of such rhythms, but it is inherent to any beat/rhythm that it has a beat per minute value.

Although the examiner considers Lee to disclose an inherent beat per minute value, Kiiskinen further teaches the tempo of audio signals being measured in a beat per minute value (**paragraph 46**).

Given the teachings of Kiiskinen, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the audio signals in beats per minute value. Doing so would allow them to be more easily referenced and better organized in the memory.

**Regarding claim 6,** Lee discloses the sensing unit is a step-speed measurement unit (**col. 9 lines 33-41**).

**Regarding claim 7,** Lee discloses the sensing unit (**40**) and the processing unit (**60**) are connected in a wired or wireless way (**fig. 1; col. 6 line 57 – col. 7 line 12**).

**Regarding claim 9,** Lee discloses the predetermined reference value includes reference values selected by a user or a programmed exercise routine (**fig. 12; goal information; col. 9 line 51 – col. 10 line 7**).

**Regarding claim 12,** Lee discloses stored audio signals, but fails to disclose the format of the signals.

However, Kiiskinen teaches using an MP3 format to store audio signals (**paragraph 45 and 46**).

Given the teachings of Kiiskinen, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the MP3 file format of Kiiskinen with the audio signals of Lee. Doing so would allow the device to hold a large number of audio signals in a relatively small amount of memory.

**Regarding claim 14,** Lee discloses an audio pacing method, comprising the steps of:

receiving a parameter of a user in physical exercise from a sensing unit (**40; col. 9 lines 38-41**);

determining whether intensity of the parameter of the user should be increased, decreased or maintained by using the parameter of the user from the sensing unit and a predetermined reference value (**col. 9 lines 51-66**);

selecting an audio signal having a tempo that enables the user to increase, decrease or maintain the intensity (**col. 9 lines 25-36 and 60-66**), further comprising the step of adjusting the tempo of a selected audio signal up to a predetermined percentage of the tempo (**col. 9 lines 51-66**).

Although the examiner considers Lee to disclose a plurality of audio signals that have predetermined tempo values, Kiiskinen further teaches that it is known to have a audio pacing method in which the audio signals have predetermined tempo values (**paragraph 46**). Kiiskinen further teaches determining, by an audio pacing device, the predetermined tempo values of the plurality of audio signals (**paragraph 46**); and categorizing the plurality of audio signals based on their predetermined tempo values (**paragraphs 45 and 46**).

Given the teachings of Kiiskinen (**paragraph 62**), it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the tempo reading means and organizing of the audio signals by tempo of Kiiskinen into Lee. Doing so would allow the user to exercise to music at the appropriate rhythm of their routine.

Although the examiner considers Lee to disclose a the processing unit being configured to adjust the tempo of a selected audio signal up to a predetermined percentage of the predetermined tempo value, Lauffer further teaches that it is known to have a processing unit (**100, 110**) configured to adjust the tempo of a selected audio

signal up to a predetermined percentage of the predetermined tempo value (**figs. 3 and 4; col. 4 line 62 – col. 5 line 34**). In the example given, the tempo is increased 150% of the original.

Given the teachings of Lauffer, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the processor of Lee with the tempo control means of Lauffer. Doing so would allow the device to be programmed to achieve specific rates of tempo and better guide the user toward a specific pace.

**Regarding claim 16**, Lee discloses the step of a user selecting the said predetermined reference value from a group of reference values or a programmed exercise routine (**col. 9 lines 21-26**).

**Regarding claim 17**, Lee discloses stored audio signals, but fails to disclose the format of the signals.

However, Kiiskinen teaches using an MP3 format to store audio signals (**paragraph 45 and 46**).

Given the teachings of Kiiskinen, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the MP3 file format of Kiiskinen with the audio signals of Lee. Doing so would allow the device to hold a large number of audio signals in a relatively small amount of memory.

**Regarding claim 18**, Lee discloses the parameter is a step speed rate (**col. 9 lines 33-41**).

**Regarding claim 19**, Lee discloses the sensing unit (**40**) a step-speed measurement unit (**col. 9 lines 33-41**).

**Regarding claim 20**, Lee discloses an audio pacing device, comprising:  
a sensing unit (**40**) to obtain a parameter that is representative of a status of a user in motion;  
a memory (**64**) to store a plurality of audio signals having predetermined tempo values; and  
a processing unit (**60**) configured to determine whether the parameter should be increased, decreased or maintained by using the parameter from the sensing unit and a predetermined reference value, and select an audio signal having a tempo that enables the user to increase, decrease or maintain the parameter (**col. 9 lines 51-66**), the processing unit being configured to adjust the tempo of a selected audio signal up to a predetermined percentage of the predetermined tempo value (**col. 9 lines 51-66**).

Although the examiner considers Lee to disclose a plurality of audio tones and music stored on the device, Kiiskinen further teaches that it is known to have an interactive music playback device in which the audio signals are stored on a memory unit (**12; paragraph 45**). Kiiskinen further teaches a processing unit (**11**) configured to

determine the predetermined tempo values of the plurality of audio signals, and wherein the plurality of audio signals are categorized based on their predetermined tempo values (**paragraph 46**).

Given the teachings of Kiiskinen (**paragraph 62**), it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the audio signal files of Lee stored on a memory. Doing so would allow the device to playback the sounds without relying on a separate device. Furthermore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the tempo reading means and organizing of the audio signals by tempo of Kiiskinen into Lee. Doing so would allow the user to exercise to music at the appropriate rhythm of their routine.

Although the examiner considers Lee to disclose a the processing unit being configured to adjust the tempo of a selected audio signal up to a predetermined percentage of the predetermined tempo value, Lauffer further teaches that it is known to have a processing unit (**100, 110**) configured to adjust the tempo of a selected audio signal up to a predetermined percentage of the predetermined tempo value (**figs. 3 and 4; col. 4 line 62 – col. 5 line 34**). In the example given, the tempo is increased 150% of the original.

Given the teachings of Lauffer, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the processor of Lee with the

tempo control means of Lauffer. Doing so would allow the device to be programmed to achieve specific rates of tempo and better guide the user toward a specific pace.

**Claims 5 and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Lee et al. (US Patent 6,837,827)** hereinafter referred to as **Lee** in view of **Kiiskinen et al. (PG Pub 2006/0112808 A1)** hereinafter referred to as **Kiiskinen** in view of **Lauffer et al. (US Patent 5,215,468)** hereinafter referred to as **Lauffer** in view of **McHugh (US Patent 6,230,047 B1)** as taught by **Richardson et al. (US Patent 6,135,951)** hereinafter referred to as **Richardson**.

**Regarding claim 5**, Lee discloses an audio pacing device (**10**) with a first sensing unit (**40**) and a first parameter (**col. 9 lines 38-41**) and a switch (**fig. 2; #56**) to alternate between different modes of use (**col. 5 lines 29-38**).

Lee in view of Kiiskinen in view of Lauffer doesn't disclose wherein the sensing unit is a heart rate monitor.

However, McHugh teaches another audio pacing device (**10**) with a different mode of operation having an alternate heart rate monitor sensing unit (**20**) and a pulse rate parameter (**Abstract; col. 5 line 61 – col. 6 line 6**).

Since Richardson teaches that during an exercise event a user would be concerned with speed pacing and heart rate (**col. 1 lines 8-30**), it therefore would have been obvious to one of ordinary skill in the art at the time the invention was made to include McHugh's sensing unit and parameter as an alternate / second mode in the

device of Lee. Doing so would allow the user to be aware of their speed pacing as well as heart rate during an exercise routine.

**Regarding claim 13**, Lee discloses an audio pacing device (**10**) with a first sensing unit (**40**) and a first parameter (**col. 9 lines 38-41**) and a switch (**fig. 2; #56**) to alternate between different modes of use (**col. 5 lines 29-38**).

Lee in view of Kiiskinen doesn't disclose a second sensor as part of the alternate / second modes.

However, McHugh teaches another audio pacing device (**10**) with a different mode of operation having an alternate sensing unit (**20**) and parameter (**col. 5 line 61 – col. 6 line 6**).

Since Richardson teaches that during an exercise event a user would be concerned with speed pacing and heart rate (**col. 1 lines 8-30**), it therefore would have been obvious to one of ordinary skill in the art at the time the invention was made to include McHugh's sensing unit and parameter as an alternate / second mode in the device of Lee. Doing so would allow the user to be aware of their speed pacing as well as heart rate during an exercise routine.

#### **(10) Response to Argument**

##### **Response to Appellant's Argument Under Heading I-A, I-B, I-C, II-A, II-B**

The Appellant's arguments with regard to the above headings is moot in view of the rejections of the McKinney reference being withdrawn.

**Response to Appellant's Argument Under Heading III-A, III-B**

The Appellant argues on p. 13 of the Brief that "Kiiskinen fails to disclose or suggest that the device (10) determines the tempo class value, but rather that the MP3 is provided to the storage means (12) in the device (10) with a tempo class value." However, the Examiner contends that the claim language of "a processing unit configured to... (4) determine the predetermined tempo values of the plurality of audio signals," is read on by the prior art of Kiiskien (paragraphs 13, 45 and 46). The Examiner contends that the reading means (11) of Kiiskinen determines the tempo of the MP3 audio signals as described in paragraph 46. That Kiiskinen determines this information from the MP3 tagging system is not excluded by the claim language.

**Response to Appellant's Argument Under Heading IV-A, IV-B**

The Appellant relies on the arguments of Headings III-A and III-B in their arguments of these sections. As such the Examiner points to his response to arguments for Headings III-A and III-B.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Andrew M Tecco/

Examiner, Art Unit 3764

15 July 2010

Conferees:

/LoAn H. Thanh/

Supervisory Patent Examiner, Art Unit 3764

/Michael Phillips/

RQAS